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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,154	10/18/2001	Brian E. Gorrell	3030-69081	7528

23643 7590 10/04/2002

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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,154

Applicant(s)

GORRELL, BRIAN E.

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed April 15, 2002 has been submitted for consideration by the Office. It has been placed in the application file and the information referred to therein has been considered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 13-14, 17, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hastings et al (Pat Num 4,739,935, herein referred to as Hastings).

Hasting discloses a high voltage cable (Figs 1-3) utilized in a spray system.

Specifically, with respect to claim 1, Hastings discloses a high voltage cable (Figs 1-3) including a fiber core (40), a first layer (42) of an electrically relatively non-insulative polymer (Col 4, lines 4-13), a second layer (44) of an electrically relatively non-conductive polymer (Col 4, lines 50-55), a third layer (46) of an electrically relatively non-insulative polymer (Col 4, lines 58-62), a fourth layer (50) including a metal braid shield (Col 6, lines 10-16), and a fifth layer (54) including a relatively solvent- and abrasive-resistant polymer jacket (Col 6, lines 10-15). With respect to claim 2, Hastings

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discloses that the fiber core (42) includes a stranded fiber polyester core (Col 4, lines 5-10). With respect to claim 3, Hastings discloses that the fiber core (42) is impregnated to increase its bulk conductivity (i.e. silicone carbide). With respect to claim 4, Hastings discloses that the fiber core (42) is impregnated with carbon black (i.e. silicon carbide). With respect to claim 5, Hastings discloses that the fiber core (42) is impregnated to increase its bulk conductivity. With respect to claim 6, Hastings discloses that the fiber core (42) is impregnated with carbon black (i.e. silicon carbide). With respect to claim 7, Hastings discloses that the first layer (44) includes a layer of semiconductive polyethylene (Col 4, lines 50-55). With respect to claim 8, Hastings discloses that the first layer (44) includes a layer of semiconductive polyethylene that includes a layer of carbon black-loaded polyethylene (Col 4, lines 50-55). With respect to claims 9-10, Hastings discloses that the first layer (44) may includes a layer of non-conductive layer of low-density polyethylene (Col 5, lines 60-65). With respect to claim 13, Hastings discloses that third layer (46) includes a layer of spirally extruded electrically relatively non-insulative polymer (Col 5, lines 60-68). With respect to claim 14, Hastings discloses that the metal braid (50) shield includes a copper-containing braid shield (Col 6, lines 10-20). With respect to claim 17, Hastings discloses that the metal braid shield (50) includes a metal braid covering between about 100% of the outside surface of the third layer (46) of electrically relatively non-insulative polymer (Fig 2). With respect to claim 19, Hastings discloses that the polymer jacket (54) includes a flexible polyurethane jacket (Col 6, lines 15-20). With respect to claim 20, Hastings discloses that cable (Fig 1) is in combination with a high magnitude

3. electrostatic potential supply (18), a device (10) for the electrostatically aided atomization and dispensing of a coating material (14), a source (26) of the coating material coupled to the device (10), and wherein the high voltage cable (20) is coupled to the potential supply (18) to the device (10).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-12, 15-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hastings et al (Pat Num 4,739,935, herein referred to as Hastings). Hastings discloses a high voltage cable (Figs 1-3) utilized in a spray system as detailed above with respect to claim 1.

However, Hastings doesn't necessarily disclose the layer being PVC (claim 11), nor the layer being spirally wrapped PVC (claim 12), nor the shield comprising tin (claim 14), nor the shield comprising tin braided shield (claim 15), nor the braid shield pitch being about 0 to 20° (claim 18).

With respect to claims 11-12 and 14-15, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cable of Hastings to comprise the layer to be a spirally wrapped PVC and the shield to be a tin braided shield, since it has been held to be within general skill of a worker in the art to

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select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

With respect to claim 18, It would have been an obvious matter of design choice to modify the cable of Hastings to comprise braid shield pitch being about 0 to 20°, since the applicant has not disclosed that such a modification solves any stated problems or is for any particular purpose and it appears that Hastings would perform equally well with the modification.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Aldissi (Pat Num 5,473,113) and Frawley (Pat Num 4,757,297), both of which disclose tin braids.

Communication

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (703)306-9061. The examiner can normally be reached on M-F 8:30am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3431 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "William III", with a stylized flourish at the end.

WHM III
October 1, 2002